

United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/674,385	10/01/2003	Victor Korol	P-5908-US	4436
27130	7590 12/10/2004	EXAMINER		
EITAN, PEARL, LATZER & COHEN ZEDEK LLP 10 ROCKEFELLER PLAZA, SUITE 1001 NEW YORK, NY 10020			GLENN, KIMBERLY E	
			ART UNIT	PAPER NUMBER
·			2817	

DATE MAILED: 12/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	() \					
	Application No.	Applicant(s)				
Office Action Summan.	10/674,385	KOROL, VICTOR				
Office Action Summary	Examiner	Art Unit				
	Kimberly E Glenn	2817				
The MAILING DATE of this communication app Period for Reply	ears on the cover sheet with	h the correspondence address				
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.1: after SIX (6) MONTHS from the mailing date of this communication. If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period versions to reply within the set or extended period for reply will, by statute any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply within the statutory minimum of thirty will apply and will expire SIX (6) MONT, cause the application to become ABA	oly be timely filed (30) days will be considered timely. HS from the mailing date of this communication. NDONED (35 U.S.C. § 133).				
Status						
1) Responsive to communication(s) filed on	_•					
	action is non-final.					
3) Since this application is in condition for allowar) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is					
closed in accordance with the practice under E	closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11, 453 O.G. 213.					
Disposition of Claims						
4) ☐ Claim(s) <u>1-26</u> is/are pending in the application. 4a) Of the above claim(s) is/are withdray 5) ☐ Claim(s) is/are allowed. 6) ☐ Claim(s) <u>1-6 8-13 15 18-26</u> is/are rejected. 7) ☐ Claim(s) <u>7,14,16 and 17</u> is/are objected to. 8) ☐ Claim(s) are subject to restriction and/or	vn from consideration.					
Application Papers						
The specification is objected to by the Examiner.						
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner. Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
Replacement drawing sheet(s) including the correct		• •				
11) The oath or declaration is objected to by the Ex	= :	• • •				
Priority under 35 U.S.C. § 119						
12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of: 1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the prior application from the International Bureau * See the attached detailed Office action for a list of the priority documents.	s have been received. s have been received in Ap ity documents have been r i (PCT Rule 17.2(a)).	plication No eceived in this National Stage				
Attachment(s)						
 Notice of References Cited (PTO-892) Notice of Draftsperson's Patent Drawing Review (PTO-948) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 10/01/03. 	_	Mail Date brmal Patent Application (PTO-152)				
Patent and Trademork Office						

Application/Control Number: 10/674,385

Art Unit: 2817

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-4, 15, 16, 18-21 and 23-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaynor et al US Patent 5,939,939 in view of Blodgett US Patent 5,430,418

Gaynor et al disclose a communication device comprising a combiner 518, a first and second amplifier 538 540 which provides an output to a load 416.

Thus, Gaynor et al is shown to teach all the limitations of the claims with the exception of the combiner being composed of a first capacitor, a first inductor, a shared capacitor, a second capacitor, and a second inductor, the capacitance of the first capacitor being different from the capacitance of the shared capacitor and the shared capacitor combining the first and second signals of the first and second power amplifier.

Blodgett teach in FIG. 1, a power combiner comprising of capacitor 111 (shared capacitor), capacitor 113, capacitor 115, inductor 117, inductor 119 and resistor 121.

The capacitance of capacitor 111 is preferably equal to twice the capacitance of either capacitor 113 or capacitor 115, which are preferably of the same value. The values of

Art Unit: 2817

the capacitors, inductors and resistors are preferably chosen so that the embodiment acts as an impedance inverter.

One of ordinary skill in the art at the time of the invention would have found to obvious to replace the combiner of Gaynor et al with the combiner as taught by Blodgett. The motivation for this modification would have been to provide the advantageous benefit of combiner, which exhibits uniform impedance at all its ports.

Claims 5, 6 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaynor et al US Patent 5,939,939 in view of Blodgett US Patent 5,430,418 in combination with Kobayashi US Patent 6,252,463

Gaynor et al and Blodgett disclose a communication device comprising a combiner 518, a first and second amplifier 538 540 which provides an output to a load 416. See the above 35 USC 103 rejection for details of Gaynor et al and Blodgett references.

Thus, Gaynor et al and Blodgett are shown to teach all the limitations of the claims with the exception of the amplifier being composed of bipolar transistors.

Kobayashi discloses in prior art figure 1, amplifier comprising a bipolar transistor.

One of ordinary skill in the art at the time of the invention would have found it obvious to replace the general amplifiers of Gaynor et al with the bipolar transistor amplifier as taught by Kobayashi since examiner takes notice of the equivalence of the general amplifier of Gaynor et al and the bipolar transistor amplifiers of Kobayashi for their use in the communication art and the selection of any of these known equivalents to provide an amplified signal would be within the level of ordinary skill in the art.

Claims 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaynor et al US Patent 5,939,939 in view of Blodgett US Patent 5,430,418 in combination with Bishop US Patent 6,337,666.

Gaynor et al disclose a communication device in figure 5 comprising a combiner 518, a first and second amplifier 538 540 which provides an output to an antenna 416.

Thus, Gaynor et al is shown to teach all the limitations of the claims with the exception of the combiner being composed of a first capacitor, a first inductor, a shared capacitor, a second capacitor, and a second inductor, the capacitance of the first capacitor being different from the capacitance of the shared capacitor and the shared capacitor combining the first and second signals of the first and second power amplifier and the antenna being a dipole antenna.

Blodgett teach in FIG. 1, a power combiner comprising of capacitor 111 (shared capacitor), capacitor 113, capacitor 115, inductor 117, inductor 119 and resistor 121. The capacitance of capacitor 111 is preferably equal to twice the capacitance of either capacitor 113 or capacitor 115, which are preferably of the same value. The values of the capacitors, inductors and resistors are preferably chosen so that the embodiment acts as an impedance inverter.

One of ordinary skill in the art at the time of the invention would have found to obvious to replace the combiner if Gaynor et al with the combiner as taught by Blodgett.

The motivation for this modification would have been to provide the advantageous benefit of combiner which exhibits uniform impedance at all the ports.

Bishop discloses a dipole antenna unit that is lightweight, compact, highly reliable, and efficiently produced.

One of ordinary skill in the art at the time of the invention would have found to obvious to replace the general antenna of Gaynor et al with the dipole antenna unit as taught by Bishop. The motivation for this modification would have been to provide the advantageous benefit of antenna which is lightweight, compact, highly reliable, and efficiently produced.

Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gaynor et al US Patent 5,939,939 in view of Blodgett US Patent 5,430,418 in view of Bishop US Patent 6,337,666 in combination with Kobayashi US Patent 6,252,463

Gaynor et al, Blodgett, and Bishop disclose a communication device comprising a combiner 518, a first and second amplifier 538 540 which provides an output to a load 416. See the above 35 USC 103 rejection for details of Gaynor et al, Blodgett and Bishop references.

Thus, Gaynor et al, Blodgett and Bishop are shown to teach all the limitations of the claims with the exception of the amplifier being composed of bipolar transistors.

Kobayashi discloses in prior art figure 1, amplifier comprising a bipolar transistor.

One of ordinary skill in the art at the time of the invention would have found it obvious to replace the general amplifiers of Gaynor et al with the bipolar transistor amplifier as taught by Kobayashi since examiner takes notice of the equivalence of the general amplifier of Gaynor et al and the bipolar transistor amplifiers of Kobayashi for

Art Unit: 2817

their use in the communication art and the selection of any of these known equivalents to provide an amplified signal would be within the level of ordinary skill in the art.

Allowable Subject Matter

Claims 7, 14, 16 and 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter: With regards to claims 7, 14 and 17, the prior art of record does not disclose a filter for filtering out the second harmonic of the first and second signals.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gaukel et al US Patent 6,812,808, Jean et al US Patent 5,886,591, Stengel et al US Patent 6,356,149, King et al US Patent 6,472,935, Resser et al US Patent 6,011,959 and Raab US Patent 6,552,634

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly E Glenn whose telephone number is (571)-272-1761. The examiner can normally be reached on Monday-Friday 7:30 to 4:00.

Application/Control Number: 10/674,385 Page 7

Art Unit: 2817

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Pascal can be reached on (571)-272-1769. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kimberly E Glenn Examiner Art Unit 2817

keg

Robert Pascal
Supervisory Patent Examiner
Technology Center 2800